

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

STUDIENGESELLSCHAFT KOHLE MBH
Kaiser-Wilhelm-Platz 1
45470 Mülheim an der Ruhr
ALLEMAGNE

Eingegangen

17. Aug. 2006

Date of mailing (*day/month/year*)
03 August 2006 (03.08.2006)

Applicant's or agent's file reference
A 394

IMPORTANT NOTIFICATION

International application No.
PCT/DE2004/002347

International filing date (*day/month/year*)
20 October 2004 (20.10.2004)

Applicant

STUDIENGESELLSCHAFT KOHLE MBH et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Ellen Moyse

Facsimile No. +41 22 338 82 70

Facsimile No. +41 22 338 82 70

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference A 394	FOR FURTHER ACTION	See item 4 below
International application No. PCT/DE2004/002347	International filing date (<i>day/month/year</i>) 20 October 2004 (20.10.2004)	Priority date (<i>day/month/year</i>) 22 October 2003 (22.10.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant STUDIENGESELLSCHAFT KOHLE MBH		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 27 July 2006 (27.07.2006)
Facsimile No. +41 22 338 82 70	Authorized officer <div style="text-align: center; font-size: 1.2em;">Ellen Moyse</div> e-mail: pt05@wipo.int

PATENT COOPERATION TREATY

Translation

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

<div style="border: 1px solid black; width: 100%; height: 100%;"></div>		<p>Date of mailing (day/month/year)</p> <p style="text-align: center;">See Form PCT/ISA/210 (sheet 2)</p>
<p>Applicant's or agent's file reference</p> <p style="text-align: center;">A 394</p>		<p style="text-align: center;">FOR FURTHER ACTION</p> <p style="text-align: center;">See paragraph 2 below</p>
<p>International application No.</p> <p style="text-align: center;">PCT/DE2004/002347</p>	<p>International filing date (day/month/year)</p> <p style="text-align: center;">20.10.2004</p>	<p>Priority date (day/month/year)</p> <p style="text-align: center;">22.10.2003</p>
<p>International Patent Classification (IPC) or both national classification and IPC</p> <p style="text-align: center;">C08L101/00, C09K11/77</p>		
<p>Applicant</p> <p style="text-align: center;">STUDIENGESELLSCHAFT KOHLE MBH</p>		

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

<p>Name and mailing address of the ISA/EP</p>	<p>Authorized officer</p>
<p>Facsimile No.</p>	<p>Telephone No.</p>

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2004/002347

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2004/002347

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	8-13	YES
	Claims	1-7, 14, 15	NO
Inventive step (IS)	Claims	8-13	YES
	Claims	1-7, 14, 15	NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO
2. Citations and explanations:			
Reference is made to the following documents:			
D1: WO 00/56837			
D2: US 6596600 B1			
1. The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claims 1-7, 14, 15 is not novel within the meaning of PCT Article 33(2).			
2. Document D1 discloses a luminescent composite material containing nanoparticles and luminescent devices produced therefrom (page 2, lines 2-22; page 9, lines 13-23; page 5, lines 23-29; page 9, line 29 to page 10, line 6; claims). The above-mentioned nanoparticles are preferably lanthanide-doped phosphors (page 3, lines 19-23; examples 1 and 2, table 1). The subject matter of claims 1, 2, 4, 6, 14, 15 is not novel with respect to D1.			
3. Document D2 discloses a polycarbonate plastic glass which contains ZnS nanoparticles (column 11, line 65			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/DE2004/002347

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

to column 13, line 40, example 2 in table 1).

Claims 1-5, 7 are also not novel with respect to D2.

4. Document D1 is considered the closest prior art to the subject matter of claims 8-13. However, D1 gives only a general indication as to the process for producing the luminescent plastic glass, according to which any process known to a person skilled in the art is suitable. Therefore, the subject matter of claims 8-13 is novel within the meaning of PCT Article 33(2).
5. The processes which are known to a person skilled in the art, however, normally consist in the particles being mixed with the polymer melt in a kneader or extruder. In the process of claim 8, by contrast, the particles are first of all mixed with a polymer precursor or a solution of the polymer precursor, before the mixture obtained is then polymerized. This solution involves an inventive step, because a person skilled in the art will not find any suggestion in D1 which leads to the process according to claim 8. Therefore, claims 8-13 involve an inventive step within the meaning of PCT Article 33(3).